ANCHOR QEA

WEEKLY PROGRESS REPORT

PROJECT NO.: 080224-01

REPORT PERIOD: September 7 to 13, 2014

REPORT NO.: 011

PREPARED BY: Ryan Barth, PE

PROJECT NAME/LOCATION: Jorgensen Forge Early Action Area Removal Action

Report Submitted to:		Contractor Name and Contact:	
To:	Rebecca Chu, U.S. Environmental Protection Agency	General:	JC Clark, Pacific Pile & Marine, LP
cc:	Gilbert Leon, Earle M. Jorgensen Company	Subconsultant:	TerraSond, Ltd.
	Miles Dyer, Jorgensen Forge Corporation		WaterTechtonics
	Amy Essig Desai, Farallon Consulting, LLC		Waste Management, Inc.
	Mike Roberts, PE, CCM, David Templeton, Ross Pickering, PE, Kyle King, PE, Anchor QEA, LLC		

CONSTRUCTION OBSERVATIONS		
Day	**Date**	**Description of Field Activity, Observations, and Recommendations to Owner**
Sunday	9/07/14	• No work conducted.
Monday	9/08/14	**Offshore:** • Hydrographic survey performed. **Upland:** • Approximately 500 tons of rip rap placed and compacted along the shoreline bank.
Tuesday	09/09/14	**Offshore:** • Approximately 250 tons of rip rap placed within the shoreline bank toe key in DMU-3 and DMU-4. Bucket cycle times averaging 45 seconds. **Upland:** • Approximately 250 tons of rip rap placed and compacted along the shoreline bank. • Upland excavators and dump trucks used to transport rip rap material to the top of bank for in-water placement by the Hitachi 1200 excavator staged on the Web barge. • PPM performed shoreline bank condition survey. • Eco blocks removed from site.
Wednesday	09/10/14	**Offshore:** • Approximately 1000 tons of rip rap placed with in the shoreline bank toe key in DMU-4 and DMU-5 using the Hitachi 1200 excavator staged on the Web barge. • Approximately 430 tons of backfill material placed in areas below design backfill grades. Bucket cycle times averaged 45 seconds, slower than the cycle time approved by EPA for no water quality monitoring. **Upland:** • Upland excavators used to shape and finish placed rip rap along the shoreline bank. • Upland excavators and dump trucks used to transport rip rap material to the top of bank for in-water placement by the Hitachi 1200 excavator staged on the Web barge. • Weekly construction progress meeting held in PPM construction trailer.
Thursday	09/11/14	**Offshore:** • Approximately 600 tons of rip rap placed with in the shoreline bank toe key in DMU-5 below the cofferdam using the Hitachi 1200 excavator staged on the Web barge. • Approximately 760 tons of backfill material placed in areas below design backfill grades. Bucket cycle times averaged 45 seconds, slower than the cycle time approved by EPA for no water quality monitoring. **Upland:**

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CONSTRUCTION OBSERVATIONS		
Day	**Date**	**Description of Field Activity, Observations, and Recommendations to Owner**
		• Upland excavators used to shape and finish placed rip rap along the shoreline bank. • Upland excavators and dump trucks used to transport rip rap material to the top of bank for in-water placement by the Hitachi 1200 excavator staged on the Web barge. • TerraSond performed a hydrographic and shoreline bank survey.
Friday	09/12/14	**Offshore:** • Rip rap placed along the channelward edge of the shoreline bank toe key in DMU-2 through DMU-5 using the Hitachi 1200 excavator staged on the Web barge. • Backfill material placed in areas below design backfill grades. Bucket cycle times averaged 45 seconds, slower than the cycle time approved by EPA for no water quality monitoring. **Upland:** • Upland excavators used to shape and finish placed rip rap along the shoreline bank. • Upland excavators and dump trucks being used to transport rip rap material to the top of bank for in-water placement by the Hitachi 1200 excavator staged on the Web barge. • TerraSond performed a hydrographic and shoreline bank survey.
Saturday	09/13/14	**Offshore:** • Rip rap placed with in the shoreline bank toe key in DMU-5 below the cofferdam using the Hitachi 1200 excavator staged on the Web barge. • Backfill material placed in areas below design backfill grades. Bucket cycle times averaged 45 seconds, slower than the cycle time approved by EPA for no water quality monitoring. **Upland:** • Rip rap placed and compacted along the shoreline bank. • Upland excavators and dump trucks used to transport rip rap material to the top of bank for in-water placement by the Hitachi 1200 excavator staged on the Web barge. • PPM performed a hydrographic and shoreline bank condition survey.

Health and Safety Observations

- Continued refinement of safety practices of EPA, USACE, and PPM to conform to the site-specific Health and Safety Plan (HASP).
- Daily health and safety tool box talks performed.
- No near misses reported.

Water, Soil, and Sediment Sampling Observations and Testing Results

- During this reporting period, the final water chemistry results for samples collected during removal activities were received and confirm that there were no exceedances of chemical water quality standards attributed to the dredging activities throughout the duration of the project.
    - Received preliminary PCB analytical results, which are summarized in Attachment A, of water samples collected on August 11, 2014 during round 2 of monitoring at the 300 foot compliance stations. These 300 foot compliance samples were analyzed in response to the 1-hour average concentration at the 300 foot compliance point on August 12th that was higher than the chronic criterion for Total PCBs to

Water, Soil, and Sediment Sampling Observations and Testing Results

derive a partial 24-hour average concentration to further evaluate the potential chronic exceedance. As shown in Attachment A, the partial 24-hour average concentration is below the chronic criterion. This is a partial 24-hour average concentration because there were 8 samples collected on August 11th from the 300 foot compliance stations within 24 hours of the samples collected on August 12th that could be analyzed to derive the 24-hour average concentration. However, only the 4-300 foot compliance samples collected from Round 2 of monitoring on August 11th were analyzed and the results were averaged with the results already obtained on August 12th to derive a partial 24-hour average concentration. Because the partial 24-hour average result is below the chronic criterion, no additional analyses will be performed.

  - Received preliminary PCB analytical results of a water sample collected on August 11, 2014 at the 300 foot compliance station (Attachment A). Per EPA direction, this 300 foot compliance sample was analyzed for Total PCBs because the background and 150 foot compliance sample results were both higher than the chronic criterion (indicating a riverwide condition rather than related to the dredging activity). The 300 foot compliance station is the compliance point for chronic criteria. The Total PCB concentration at the 300 foot compliance station is also below the chronic criterion.

- Anchor QEA collected a sample of water containing sheen that was observed in the coffer dam during sheetpile wall removal August 29, 2014. This sample was analyzed for total petroleum hydrocarbons (diesel range organics), PCBs, and PAHs. The analytical results are summarized in Attachment B. The Total PCB result was below the acute criterion and above the chronic criterion. The diesel range organics results were non-detect. The PAH results were all non-detect. No additional action is required by EPA.

Anticipated Work for the Next Week

- TerraSond perform final as-built survey.
- Demobilize PPM's upland equipment from the uplands and remove the wheel wash.
- Dispose of the water treatment barge filter sands and granular activated carbon and wash water from the wheel washes located at the site and the PPM Transload Facility.
- Remove the construction trailers from the site.
- Sweep paved surfaces in the construction area.
- Weekly progress update construction meeting scheduled for September 17.

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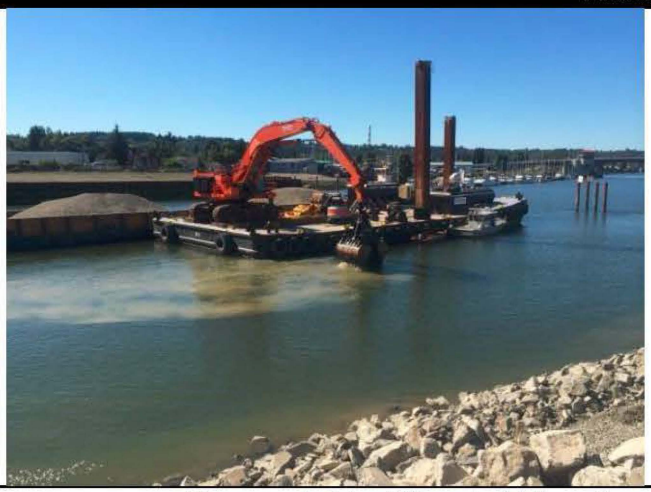
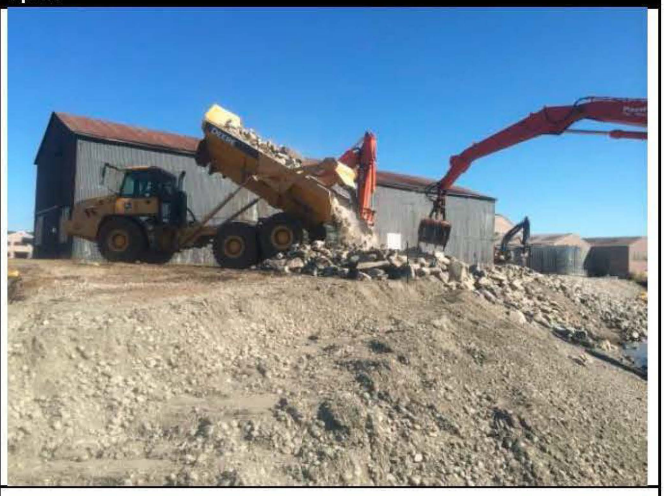
Changes and Modifications

- PPM directed in the field to place the habitat substrate at a maximum elevation of +15 feet mean lower low water (MLLW) elevation rather than the top of the bank to increase the thickness of substrate within the tidal range.
- PPM directed to place approximately 100 tons of additional rip rap along an isolated area of the shoreline bank toe key in DMU-4 and DMU-5 given the channelward berm was not constructed to the design elevations.

Photographs



Description: Placement of backfill material from the Web barge.



Description: Dumping rip rap at top of slope.

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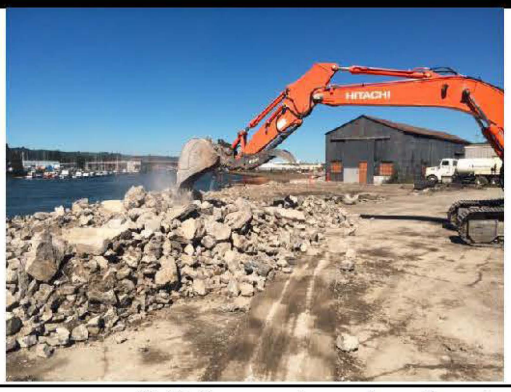
Photographs

Description: 470 excavator grooming rip rap bank.



Description: 210 LC excavator re-handling rip rap to top of bank

Description: Placement of toe key rip rap from the Web barge.

Description: Placement of habitat substrate from the Web barge.

Description: View of rip rap placement along bank looking north.

Description: View of rip rap placement along bank looking south.

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Photographs

Description: Post-construction condition of paved area east of top of bank.

Description: Post-construction condition just east of top of bank

List of Attachments

Attachment A – Additional total PCB water quality monitoring results, analytical

Attachment B – Coffer dam sheetpile removal sheen monitoring results, analytical

ATTACHMENT A
ADDITIONAL TOTAL PCB WATER QUALITY MONITORING RESULTS, ANALYTICAL

Jorgensen Forge Early Action Area Removal Action
Laboratory Parameter Results

Date:	9/9/2014
Date of Sample Collection:	8/12/2014 and 8/11/2014
Construction Activity:	*Dredging DMU-3 in the DMU-3/DMU-4 relatively elevated PCB area*
Results Summary:	*These 300 foot compliance samples collected on August 11th were analyzed in response to the 1 HR average concentration at the 300 foot compliance point on August 12th that was higher than the chronic criterion for Total PCBs to derive a partial 24-hour average concentration to further evaluate the potential chronic exceedance. As shown below, the partial 24-hour average concentration is below the chronic criterion. This is a partial 24-hour average concentration because there were 8 samples collected on August 11th from the 300 foot compliance stations within 24 hours of the samples collected on August 12th that could be analyzed to derive the 24-hour average concentration. However, only the 4-300 foot compliance samples collected from Round 2 of monitoring on August 11th were analyzed and the results were averaged with the results already obtained on August 12th to derive a partial 24-hour average concentration. Because the partial 24-hour average result is below the chronic criterion, no additional analyses will be performed.*
Type of Assessment	*300 foot compliance station--partial 24-hour average Total PCBs*

				Sample Results								
Parameter	Units	Acute Criterion	Chronic Criterion	R-300C-DF-B-140812	R-300C-UF-S-140812	R-300C-UF-B-140812	R-300C-DF-S-140812	R-300-DF2-S-140811	R-300-DF2-B-140811	R-300C-UF2-S-140811	R-300-UF2-B-140811	Partial 24-HR AVERAGE
Total PCBs	ug/L	10[b]	0.03[b]	**0.041**	**0.037**	0.026 J	**0.040 J**	0.014	0.02	0.022	0.010 J	0.026

Notes:

[a] A 24-hour average not to be exceeded.

U = Indicates that the target analyte was not detected at the reported concentration.

J = Estimated concentration when the value is less than ARI's established reporting limits.

Jorgensen Forge Early Action Area Removal Action
Laboratory Parameter Results

Date:	9/9/2014
Date of Sample Collection:	8/11/2014
Construction Activity:	*Dredging DMU-3 in the DMU-3/DMU-4 relatively elevated PCB area*
Results Summary:	*Per EPA direction, the 300 foot compliance sample from the same time/depth as the BG and 150 foot compliance sample collected on August 11, 2014 was analyzed for Total PCBs because the background and 150 foot compliance sample results were higher than the chronic criterion. The 300 foot compliance station is the compliance point for chronic criteria and the results were lower than the chronic criterion. Since the background sample also had a result higher than the chronic criterion for Total PCBs, it is considered a riverwide condition not attributable to the dredging activity.*
Type of Assessment	*Instantaneous 300 foot compliance sample*

				Previous Sample Results		300 C Result
Parameter	**Units**	**Acute Criterion**	**Chronic Criterion**	R-BG-UF2-S-140811	R-150C-DF2-S-140811	R-300-DF2-S-140811
Total PCBs	ug/L	10[a]	0.03[a]	**0.034 J**	**0.034 J**	0.014

Notes:

[a] A 24-hour average not to be exceeded.

U = Indicates that the target analyte was not detected at the reported concentration.

J = Estimated concentration when the value is less than ARI's established reporting limits.

ATTACHMENT B

COFFER DAM SHEETPILE REMOVAL SHEEN MONITORING RESULTS, ANALYTICAL

Jorgensen Forge Early Action Area Removal Action
Laboratory Parameter Results

Date:	9/18/2014
Date of Sample Collection:	8/29/2014
Construction Activity:	*Removal of Coffer Dam Sheetpile Walls*
Results Summary:	*NA*
Type of Assessment	*Sample taken of water containing a sheen that was observed within the coffer dam while sheetpile walls were being removed.*

				Sample Results	
Parameter	**Units**	**Acute Criterion**	**Chronic Criterion**	CD-S-1-140829	
PCBs	ug/L	10[a]	0.03[a]	**0.93**	
TPH					
TPH(D)		NA	NA		
Diesel Range	mg/L	NA	NA	<0.10 U	
Motor Oil	mg/L	NA	NA	<0.20 U	
PAHs					
Naphthalene	ug/L	NA	NA	<0.10 U	
2-Methylnaphthalene	ug/L	NA	NA	<0.10 U	
1-Methylnaphthalene	ug/L	NA	NA	<0.10 U	
Acenaphthylene	ug/L	NA	NA	<0.10 U	
Acenaphthene	ug/L	NA	NA	<0.10 U	
Fluorene	ug/L	NA	NA	<0.10 U	
Phenanthrene	ug/L	NA	NA	<0.10 U	
Anthracene	ug/L	NA	NA	<0.10 U	
Fluoranthene	ug/L	NA	NA	<0.10 U	
Pyrene	ug/L	NA	NA	<0.10 U	
Benz(a)anthracene	ug/L	NA	NA	<0.10 U	
Chrysene	ug/L	NA	NA	<0.10 U	
Benzo(b)fluoranthene	ug/L	NA	NA	<0.10 U	
Benzo(k)fluoranthene	ug/L	NA	NA	<0.10 U	
Benzo(a)pyrene	ug/L	NA	NA	<0.10 U	
Indeno(1,2,3-cd)pyrene	ug/L	NA	NA	<0.10 U	
Dibenzo(a,h)anthracene	ug/L	NA	NA	<0.10 U	
Benzo(j)fluoranthene	ug/L	NA	NA	<0.10 U	
Benzo(g,h,i)perylene	ug/L	NA	NA	<0.10 U	
Dibenzofuran	ug/L	NA	NA	<0.10 U	

Notes:

[a] A 24-hour average not to be exceeded.

U = Non-Detect

J = Estimated